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| 10/608,270   | 06/27/2003  | Craig Nevill-Manning | 0026-0150                 | 8305             |
| 44989  | 7590        | 03/21/2007           |                           |                  |
| HARRITY SNYDER, LLP<br>11350 Random Hills Road<br>SUITE 600<br>FAIRFAX, VA 22030 |             |                      | EXAMINER<br>HWANG, JOON H |                  |
|  |             |                      | ART UNIT                  | PAPER NUMBER     |
|  |             |                      | 2166                      |                  |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/21/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/608,270

Applicant(s)

NEVILL-MANNING, CRAIG

Examiner

Joon H. Hwang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-14, 17-26, 28-36, 39-44, 46-58 and 60 is/are pending in the application.

4a) Of the above claim(s) 15 and 37 is/are ~~withdrawn from consideration~~.

*Canceled*

- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

- 6) ☒ Claim(s) 1-4, 6-14, 17-26, 28-36, 39-44, 46-58 and 60 is/are rejected.

- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The applicant amended claims 1-2, 4, 7, 14, 23-24, 26, 29, 36, 46, 47, 53, and 60 and canceled claims 15 and 37 in the amendment filed on 1/10/07.

The pending claims are 1-4, 6-14, 17-26, 28-36, 39-44, 46-58, and 60.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1, 23, 46, 47, 53, and 60 have been considered but are moot in view of the new ground(s) of rejection.

The applicant added in claims 1, 23, 46, 47, 53, and 60 the limitation feature of one or more definitions being presented in an order determined based on a raking of the documents. The limitation feature is addressed in the following rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-4, 6, 8-9, 13-14, 17, 23-26, 28, 30-31, 35-36, 39, 46-49, 52-55, 58, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapur (U.S.

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Publication No. 2004/0249801) in view of Klavans et al. (U.S. Publication No. 2005/0234709).

With respect to claim 1, Kapur teaches a system for providing definitions (fig. 8). Kapur teaches a server configured to receive a phrase to be defined (i.e., a server 160 receiving a query to be defined from a client 120 in fig. 2, section 26 on page 3, section 176 on page 17, and fig. 8), select a document containing at least one definition (i.e., a dictionary web page containing a definition and web pages containing descriptive information are crawled/spidered and indexed, section 176 on page 17, fig. 8, and sections 25 and 28 on page 3), and match the phrase to at least one of the definitions (i.e., at least one of the definitions is matched/located with the query in fig. 8, section 176 on page 17). Kapur teaches a user interface configured to present one or more of the definitions, determined based at least in part on the matching, for the phrase (i.e., definitions of the query are shown in fig. 8, section 176 on page 17), the one or more definitions being presented in an order determined based on a ranking of the documents that contain the presented one or more definition (i.e., ranking web pages containing definition elements, section 25 on page 3, section 176 on page 17, and fig. 8). Kapur does not explicitly disclose definitions from a plurality of documents. However, Klavans teaches extracting at least one of the definitions from a plurality of documents (i.e., definitions from articles on the Internet, abstract, sections 3-10 on page 1, and sections 27-29 on page 2) in order to provide a more comprehensive and complete on-line dictionary. Therefore, based on Kapur in view of Klavans, it would have been obvious to one having ordinary skill in the art at the time the invention was

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made to utilize the teaching of Klavans to the system of Kapur in order to provide a more comprehensive and complete on-line dictionary.

With respect to claim 2, Kapur teaches selecting a document containing at least one definition is performed prior to the receiving of the phrase (i.e., crawling/spidering and indexing web pages containing definition element information can be performed in batch mode, section 25 on page 3). Kapur does not explicitly disclose definitions from a plurality of documents. However, Klavans teaches indexing at least one of the definitions from a plurality of documents (i.e., definitions from articles on the Internet, abstract, sections 3-10 on page 1, and sections 27-29 on page 2). Therefore, the limitations of claim 2 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 3, Kapur teaches the documents are Web pages (fig. 8, section 19 on page 2, and section 176 on page 17). Klavans also teaches the documents are Web pages (sections 3-10 on page 1, and sections 27-29 on page 2).

With respect to claim 4, Kapur teaches performing a search based on a search query that includes a predetermined term indicative of a presence of definitions (i.e., a user enters "define (argument)" as a query, section 176 on page 17 and fig. 8).

With respect to claim 6, Kapur teaches the predetermined term includes one of glossary, definition, or dictionary (i.e., "define (argument)" as a query, section 176 on page 17 and fig. 8).

With respect to claim 8, Kapur teaches the determining the presence of the phrase in a determined document (i.e., locating an indexed web page that include the

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query, fig. 8 and section 176 on page 17). The limitations of claim 8 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 9, Kapur teaches the matching includes determining the absence of the phrase in a determined document (i.e., locating indexed web pages that include the query teaches discarding indexed web pages that do not include the query, fig. 8, section 176 on page 17). The limitations of claim 9 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

With respect to claim 13, Kapur teaches retrieving an associated definition of the phrase (i.e., the query's additional definitions "b" and "c" are retrieved in fig. 8 and in case of "java" query, a definition of java as the computer language and additional definitions of java as the Indonesian Island and coffee can be retrieved, section 28 on page 3).

With respect to claim 14, Kapur teaches the documents are determined substantially in real-time in response to the phrase being received from a user (i.e., performing Internet search with the arguments, section 25 on page 3, section 176 on page 17, fig. 2, and fig. 8).

With respect to claim 17, Kapur teaches the presenting further includes processing the definitions (i.e., retrieving and displaying a definition of the query in a format, fig. 8 and section 176 on page 17).

The limitations of claims 23 and 46 are rejected in the analysis of claim 1 above, and these claims are rejected on that basis.

The limitations of claim 24 are rejected in the analysis of claim 2 above, and the claim is rejected on that basis.

The limitations of claim 25 are rejected in the analysis of claim 3 above, and the claim is rejected on that basis.

The limitations of claim 26 are rejected in the analysis of claim 4 above, and the claim is rejected on that basis.

The limitations of claim 28 are rejected in the analysis of claim 6 above, and the claim is rejected on that basis.

The limitations of claim 30 are rejected in the analysis of claim 8 above, and the claim is rejected on that basis.

The limitations of claim 31 are rejected in the analysis of claim 9 above, and the claim is rejected on that basis.

The limitations of claim 35 are rejected in the analysis of claim 13 above, and the claim is rejected on that basis.

The limitations of claim 36 are rejected in the analysis of claim 14 above, and the claim is rejected on that basis.

The limitations of claim 39 are rejected in the analysis of claim 17 above, and the claim is rejected on that basis.

With respect to claim 47, Kapur teaches a system for determining definitions from distributed information stores (i.e., crawling/spidering and indexing web pages containing definition/descriptive information from server systems, fig. 2, sections 25-26 on page 3, section 176 on page 17, and fig. 8). Kapur teaches a search engine

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identifying a document based on a search query including terms indicative of a presence of definition (i.e., a search engine in a server 160 in fig. 2 crawling/spidering web pages containing definition/descriptive information and a user enters "define (argument)" as a query, section 30 on page 4, sections 4-5 on page 1, section 72 on pages 9-10, sections 25-26 on page 3, section 176 on page 17, and fig. 8), and storing information regarding each identified documents (i.e., indexing crawled/spidered web pages, section 25 on page 3). Kapur teaches a search front end matching a phrase for which a definition is sought against the stored information for each identified document (i.e., a server 160 in fig. 2 locating an indexed web page that include a query, fig. 8 and section 176 on page 17), fetching each identified document and returning one or more matching definitions, and presenting each matching definition (i.e., retrieving indexed web pages from server systems and presenting definitions of the query, fig. 8, section 176 on page 17, and sections 25-26 on page 3) in an order determined based on a ranking of the documents that contain the presented one or more definitions (i.e., ranking web pages containing definition elements, section 25 on page 3, section 176 on page 17, and fig. 8). Kapur does not explicitly disclose definitions from a plurality of documents. However, Klavans teaches extracting at least one of the definitions from a plurality of documents (i.e., definitions from articles on the Internet, abstract, sections 3-10 on page 1, and sections 27-29 on page 2) in order to provide a more comprehensive and complete on-line dictionary. Therefore, based on Kapur in view of Klavans, it would have been obvious to one having ordinary skill in the art at the time the invention was



made to utilize the teaching of Klavans to the system of Kapur in order to provide a more comprehensive and complete on-line dictionary.

With respect to claim 48, Kapur teaches a repository storing the information for a subset of the identified documents (i.e., storage 170 in fig. 2, section 27 on page 3).

With respect to claim 49, Kapur teaches the search engine searches a structure of a document for indication of a presence of a definition (i.e., a query processing engine for processing a query, wherein the query processing engine is included in a server 160 in fig. 2 and searching for query terms that indicate a presence of a definition, section 31 on page 4, section 176 on page 17, and fig. 8). Kapur does not explicitly disclose definitions from a plurality of documents. However, Klavans teaches extracting at least one of the definitions from a plurality of documents (i.e., definitions from articles on the Internet, abstract, sections 3-10 on page 1, and sections 27-29 on page 2). Therefore, the limitations of claim 49 are rejected in the analysis of claim 47 above, and the claim is rejected on that basis.

With respect to claim 52, Kapur teaches the matching definitions comprise at least one of matching terms and phrases, related terms and phrases, or random and eclectic terms and phrases (i.e., locating a query and its definition, in case of "java" query, a definition of java as the computer language and additional definitions of java as the Indonesian Island and coffee can be retrieved, section 28 on page 3 and fig. 8).

The limitations of claims 53 and 60 are rejected in the analysis of claim 47 above, and these claims are rejected on that basis.

The limitations of claim 54 are rejected in the analysis of claim 48 above, and the claim is rejected on that basis.

The limitations of claim 55 are rejected in the analysis of claim 49 above, and the claim is rejected on that basis.

The limitations of claim 58 are rejected in the analysis of claim 52 above, and the claim is rejected on that basis.

5. Claims 7 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapur (U.S. Publication No. 2004/0249801) in view of Klavans et al. (U.S. Publication No. 2005/0234709), and further in view of Maurer ("How to get a site listed in Goggle Glossary?", Internet online citation, 1/30/2003, 2 pages retrieved from [http://groups.google.com/group/google.public.labs.glossary/browse\\_thread/thread/53719c13c14dfb7f/c78873b1745039cc?q=glossary&rnum=3#c78873b1745039cc](http://groups.google.com/group/google.public.labs.glossary/browse_thread/thread/53719c13c14dfb7f/c78873b1745039cc?q=glossary&rnum=3#c78873b1745039cc) on 12/8/05).

With respect to claim 7, Kapur and Klavans disclose the claimed subject matter as discussed above except the predetermined field is a title field. However, Maurer teaches the predetermined field is a title field (i.e., searching web pages containing "glossary", "definition", or similar words in the page's title, sections 13 and 15 on page 2) in order to locate a web page containing a definition. Therefore, based on Kapur in view of Klavans, and further in view of Maurer, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to utilize the teaching of Maurer to the system of Kapur in order to locate a web page containing a definition.

The limitations of claim 29 are rejected in the analysis of claim 7 above, and the claim is rejected on that basis.

6. Claims 10-12, 32-34, 50 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapur (U.S. Publication No. 2004/0249801) in view of Klavans et al. (U.S. Publication No. 2005/0234709), and further in view of Lindblad et al. (U.S. Publication No. 2004/0073541).

With respect to claim 10, Kapur and Klavans disclose the claimed subject matter as discussed above except determining the presence of the phrase further includes determining an exact match of the phrase. However, Lindblad teaches determining the presence of the phrase further includes determining an exact match of the phrase (i.e., searching for text in documents that exactly matches a given phrase, section 199 on page 9 and sections 206 and 209 on page 10) in order to retrieve document fragments that are relevant to the query phrase. Therefore, based on Kapur in view of Klavans, and further in view of Lindblad, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Lindblad to the system of Kapur in order to retrieve document fragments that are relevant to the phrase.

With respect to claim 11, Kapur and Klavans disclose the claimed subject matter as discussed above except the matching comprises modifying the phrase. However,

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Lindblad teaches the matching comprises modifying the phrase (i.e., modifying the query to its canonical form, section 141 on page 6, sections 154 and 156 on page 7, and fig 9) in order to optimize the query phrase. Therefore, based on Kapur in view of Klavans, and further in view of Lindblad, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Lindblad to the system of Kapur in order to optimize the phrase in searching documents.

With respect to claim 12, Kapur and Klavans do not explicitly disclose modifying the phrase comprises determining a canonical form of the phrase. However, Lindblad teaches modifying the phrase comprises determining a canonical form of the phrase (section 141 on page 6, section 154 on page 7, and fig 9). Therefore, the limitations of claim 12 are rejected in the analysis of claim 11, and the claim is rejected on that basis.

With respect to claim 50, Kapur and Klavans disclose the claimed subject matter as discussed above except a parser parsing the identified documents to identify occurrences of the phrase for which a definition is sought. However, Lindblad teaches a parser parsing documents to identify occurrences of a phrase (section 42 on page 3, section 104 on page 5, section 220 on page 10, and fig. 9) in order to provide statistical information of the phrase. Therefore, based on Kapur in view of Klavans, and further in view of Lindblad, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Lindblad to the system of Kapur in order to provide statistical information of the phrase.

The limitations of claim 32 are rejected in the analysis of claim 10 above, and the claim is rejected on that basis.

The limitations of claim 33 are rejected in the analysis of claim 11 above, and the claim is rejected on that basis.

The limitations of claim 34 are rejected in the analysis of claim 12 above, and the claim is rejected on that basis.

The limitations of claim 56 are rejected in the analysis of claim 50 above, and the claim is rejected on that basis.

7. Claims 18-19 and 40-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapur (U.S. Publication No. 2004/0249801) in view of Klavans et al. (U.S. Publication No. 2005/0234709), and further in view of Coden et al. (U.S. Patent No. 6,922,809).

With respect to claim 18, Kapur and Klavans disclose the claimed subject matter as discussed above except presenting a substantially most common capitalization of the phrase. However, Coden teaches presenting a substantially most common capitalization of a phrase (lines 18-26 in col. 1 and line 17 in col. 3 thru line 5 in col. 4) in order to allow a user to read the phrase more easily. Therefore, based on Kapur in view of Klavans, and further in view of Coden, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Coden to the system of Kapur in order to allow a user to read the phrase more easily.

With respect to claim 19, Kapur teaches presenting less common forms of the phrase (i.e., "quantity" phrase in lowercase in fig. 8).

The limitations of claim 40 are rejected in the analysis of claim 18 above, and the claim is rejected on that basis.

The limitations of claim 41 are rejected in the analysis of claim 19 above, and the claim is rejected on that basis.

8. Claims 20-22, 42-44, 51, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kapur (U.S. Publication No. 2004/0249801) in view of Klavans et al. (U.S. Publication No. 2005/0234709), and further in view of Beeferman et al. (U.S. Patent No. 6,701,309).

With respect to claim 20, Kapur and Klavans disclose the claimed subject matter as discussed above except determining superstrings of the phrase present in the documents. However, Beeferman teaches determining superstrings of the phrase present in documents (lines 41-59 in col. 1) in order to improve a user's search query. Therefore, based on Kapur in view of Klavans, and further in view of Beeferman, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the teaching of Beeferman to the system of Kapur in order to improve a user's search query.

With respect to claim 21, Kapur and Klavans do not explicitly disclose presenting at least some of the determined superstrings. However, Beeferman teaches presenting at least some of the determined superstrings (i.e., suggesting and presenting superstrings of a query to a user, lines 41-59 in col. 1, lines 41-49 in col. 2, and lines 37-

43 in col. 11). Therefore, the limitations of claim 21 are rejected in the analysis of claim 20 above, and the claim is rejected on that basis.

With respect to claim 22, Kapur and Klavans do not explicitly disclose at least one of presented superstring is presented as one of a related phrase and a suggested query. However, Beeferman teaches at least one of presented superstring is presented as one of a related phrase and a suggested query (i.e., suggesting superstrings of a query to a user, lines 41-59 in col. 1, lines 41-49 in col. 2, and lines 37-43 in col. 11). Therefore, the limitations of claim 22 are rejected in the analysis of claim 21 above, and the claim is rejected on that basis.

With respect to claim 51, Kapur and Klavans disclose the claimed subject matter as discussed above. Kapur further teaches a processor processing the matching definition (i.e., a server 160 in fig. 2 locating definition, fig. 8 and section 176 on page 17). Kapur and Klavans do not explicitly disclose at least one of a filter limiting the matching definitions to substantially matching definitions and a definition module providing at least one of a superstring, common variants, and common forms of the phrase for which a definition is sought. However, Beeferman teaches at least one of a filter limiting the matching definitions to substantially matching definitions and a definition module providing at least one of a superstring, common variants, and common forms of the phrase for which a definition is sought (i.e., suggesting superstrings of a query to a user, lines 41-59 in col. 1, lines 41-49 in col. 2, and lines 37-43 in col. 11) in order to improve a user's search query. Therefore, based on Kapur in view of Klavans, and further in view of Beeferman, it would have been obvious to one

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having ordinary skill in the art at the time the invention was made to utilize the teaching of Beferman to the system of Kapur in order to improve a user's search query.

The limitations of claim 42 are rejected in the analysis of claim 20 above, and the claim is rejected on that basis.

The limitations of claim 43 are rejected in the analysis of claim 21 above, and the claim is rejected on that basis.

The limitations of claim 44 are rejected in the analysis of claim 22 above, and the claim is rejected on that basis.

The limitations of claim 57 are rejected in the analysis of claim 51 above, and the claim is rejected on that basis.

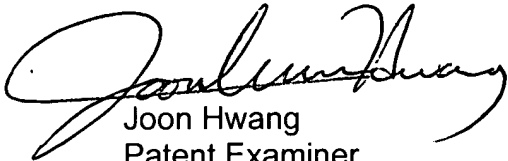
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Joon Hwang", is written over the printed name.

Joon Hwang  
Patent Examiner  
Technology Center 2100

3/16/07